



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

September 12, 2012

Via E-mail
Guy Avidan
Chief Financial Officer
Audiocodes LTD.
1 Hayarden Street
Airport City Lod 70151, Israel

**Re: Audiocodes LTD.
Form 20-F for the Year Ended December 31, 2011
Filed April 19, 2012
File No. 000-30070**

Dear Mr. Avidan:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days and indicate that you will comply with our comments in future filings. Confirm in writing that you will do so and also explain to us how you intend to comply. If you do not believe our comments apply to your facts and circumstances or do not believe compliance in future disclosure is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Item 5. Operating And Financial Review And Prospects, page 60

Results of Operations, page 67

1. Please expand your comparative analysis to more thoroughly discuss the reasons underlying quantitative changes in revenues from period to period. For example, you disclose that revenues in fiscal 2011 increased due to demand for networking products and services. However, you do not indicate why demand for these products and services increased. You also do not discuss the significant decline in revenues from the technology business line. Where material, address shifts in revenues attributable to specific business lines and geographic regions. Please similarly expand your discussion of other operating measures. Refer to Item 5.A. of Form 20-F.

D. Trend Information, page 76

2. Please enhance your MD&A to discuss the likely impact of all material known trends, demands, commitments, events or uncertainties which are reasonably likely to have material effects on your financial condition or results of operations. For example, we note that revenues attributable to the legacy technology business line decreased materiality during fiscal 2011. We further note statements made during earnings calls that management expected low revenues from sales attributable to the technology line to continue and expected a shift in revenue mix during fiscal 2012 in favor of the core networking line. However, you do not provide a thorough discussion of how you believe this known trend will impact your revenues or income in future periods. Refer to Item 5.D. of Form 20-F.

F. Tabular Disclosure Of Contractual Obligations, page 77

3. Please include the interest payments you expect to make to service debt obligations in the table. In your response, explain why expected payments to the Office of the Chief Scientist amount to \$24.1 million. The disclosure under Research and Development on page 75 indicates that you had obtained grants from the OCS aggregating \$12.0 million as of December 31, 2011 and are obligated to pay royalties up to 100% of the grants received.

Item 19. Exhibits, page 129

4. It appears that you filed as Exhibit 4.24 a summary of your September 27, 2011 loan agreement with Bank Benleumi, First International Bank of Israel Ltd rather than your September 27, 2011 loan agreement with Bank Leumi Israel Ltd. In your next report, please file as an exhibit your September 27, 2011 loan agreement with Bank Leumi Israel Ltd. Furthermore, in future filings, please file as exhibits English translations of your material agreements rather than English summaries. Refer to Rule 12b-12(d) of the Securities Exchange Act of 1934. In particular, refer to Rule 12b-12(d)(2), which lists the documents that must be submitted as English translations and not as English summaries.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In responding to our comments, please provide a written statement from the company acknowledging that:

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- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

You may contact Michael Henderson, Staff Accountant, at 202-551-3364 or Terry French, Accountant Branch Chief, at 202-551-3828 if you have questions regarding comments on the financial statements and related matters. Please contact Jonathan Groff, Staff Attorney, at 202-551-3458, Kathleen Krebs, Special Counsel, at 202-551-3350 or me at 202-551-3810 with any other questions.

Sincerely,

/s/ Kathleen Krebs, for

Larry Spigel
Assistant Director